## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 27 January 2005 (27.01.2005)

**PCT** 

## (10) International Publication Number WO 2005/007556 A1

(51) International Patent Classification7: B67B 3/20, 3/28

(21) International Application Number:

PCT/IB2004/002330

(22) International Filing Date: 15 July 2004 (15.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: BO2003A000432 17 July 2003 (17.07.2003) 17

(71) Applicant (for all designated States except US): AZIONARIA COSTRUZIONI MACCHINE AU-TOMATICHE A.C.M.A. S.P.A. [IT/IT]; Via Cristoforo Colombo, 1, I-40131 Bologna (IT).

(72) Inventors; and

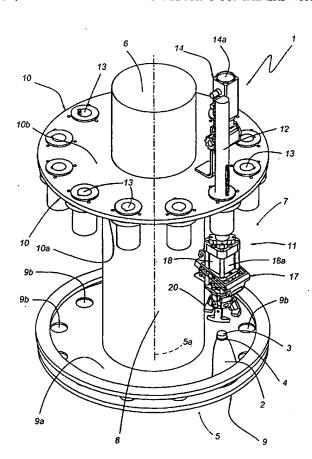
(75) Inventors/Applicants (for US only): GALIMBERTI, Enrico [TT/TT]; Via Monteverdi, 35, I-46047 Porto Mantovano

(IT). CAVALLARI, Stefano [IT/IT]; Via del Meloncello, 5, I-40135 Bologna (IT).

- (74) Agents: BIANCIARDI, Ezio et al.; Bugnion S.p.A., Via Goito, 18, I-40126 Bologna (IT).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: A CAPPING UNIT FOR CLOSING CONTAINERS WITH RESPECTIVE CAPS



(57) Abstract: Containers (2) are closed with screw caps (3) by a unit (1) of the type comprising a carousel (7) on which to advance the containers (2) and the relative caps (3), driven by a motor (6) about a respective primary axis (5a) and equipped with a plurality of capping assemblies (11) each positioned above a relative container (2) and capable of movement vertically between a first position, distanced from the container (2), and a second. position of active engagement with the container (2). Each capping assembly (11) presents a gripping mechanism (17) positionable so as to engage a relative cap (3) when the assembly (11) is in the second position, and rotatable about a respective secondary axis (17a) in such a way as to screw the cap (3) onto a threaded neck (4) of the relative container (2). The unit (1) further comprises first motors (14) by which the capping assemblies (11) can be raised and lowered one independently of another, and second motors (18) by which the gripping mechanisms (17) can be rotated one independently of another.